

XIV. *Descriptions of some new species of Diurnal Lepidoptera, collected by Mr. Harold Cockson, in Northern Rhodesia, in 1903 and 1904.* By HERBERT DRUCE, F.L.S. Lycænidae and Hesperidae, by HAMILTON H. DRUCE, F.Z.S.

[Read March 1st, 1905.]

PLATE XIII.

THE collection contains a large number of species, the most interesting being *Planema poggei*, *Precis touhilimasa*, *Crenis rosa* ♂ and ♀, *Pseudacræa poggei*, *Euryphene plistonax*, *Euryphene latitia* ♂ and ♀, *Crenidomema concordia* ♂ and ♀, *Charaxes macclounii* ♂ and ♀, *Teracolus regina*, *Papilio riddleyanus*, *Papilio toboranus*.

We have described 11 as new species, leaving several others, of which only one specimen has been sent, for future determination.

Family SATYRIDÆ.

Mycalesis cooksoni, sp. nov. (Plate XIII, fig. 1.)

♂. Upper-side. Primaries and secondaries dark brown, the fringes of both wings lighter brown. Primaries with a small indistinct apical ocellus, a large black ocellus near the anal angle with a small white dot in the middle, a short oblique cream-coloured band crosses the wing from the costal margin to the upper-side of the black ocellus.

Under-side. Primaries greyish-brown crossed beyond the middle by a narrow yellow curved line, the cream-coloured band as above but smaller, the ocellus more distinct, two fine yellow lines close to the base. Secondaries greyish-brown mottled with darker brown, a blackish-brown line crosses the middle of the wing from near the apex to the inner margin above the anal angle, a submarginal row of minute black dots extending from near the apex to the anal angle, those near the anal angle the largest.

Expanse 2 inches.

Hab. NORTH-WEST RHODESIA.

This species is allied to *Mycalesis sciathis*, Hew., from Old Calabar, and *M. selousi*, Butl.

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Mycalcesis haroldi, sp. nov. (Plate XIII, fig. 2.)

♂. Head, antennæ, palpi, thorax and abdomen brownish-black, under-side of the abdomen and the legs pale brown. Upper-side: Primaries cream-colour broadly shaded with brown at the base, the costal margin apex and outer margin dark brown, a small indistinct ocellus close to the apex, a large ocellus nearest the anal angle, a faint submarginal line extends from the apex to the anal angle. Secondaries cream-colour, the base and inner margin clouded with brown, the apex and outer margin dark brown with a faint submarginal line extending from the apex to the anal angle.

Under-side: both wings pale brown. Primaries crossed beyond the middle of a cream-coloured band which widens out to the anal angle, two large ocelli close to the outer margin, the first near the apex, the second above the anal angle; a marginal and submarginal pale greyish band extends from the apex to the anal angle. Secondaries crossed about the middle by a rather wide cream-coloured band, a submarginal row of six ocelli extending from the apex to the anal angle, the first large, second and third very small, four and five large, six small. The marginal lines the same as on the primaries.

Expanse 2 inches.

Hab. NORTH-WESTERN RHODESIA.

LYCÆNIDÆ.

Amongst the *Lycænidae* are many interesting species, showing an admixture of Western and South Tropical forms. The collection contains *Alæna oberthuri*, Auriv., a species with uniform black hind-wings on the upper-side, a good series of *Pentila amenaida*, Hew., showing considerable variation as regards the richness of colour and the number of black spots; *Mimaeræa marshalli*, Trimen, in fine condition; a large series of the little-known *Terias*-looking *Liptena homeyeri*, Dewitz.* A ♀ specimen agreeing exactly with Dr. Trimen's figure of *Epamera trimeni*, Walleng., which if this is the true *Trimeni* makes one doubt whether the insects from the Transvaal referred by Mr. G. A. K. Marshall to this species are correctly determined or whether Dr. Trimen's figure really refers to *Trimeni* or some other unnamed form. *Zeritis sorhageni*, Dewitz, and *Z. neriene*, Boisd., agreeing exactly with Boisduval's figure, and in my opinion quite distinct from Dr. Butler's *Z. amine*. *Aphnæus erikssoni*, Trimen.

* *Homeyeri*, Dewitz, D. E. Z., 30, p. 429, t. 2, f. 5, 5a, 5b, 5c.

Spalgis lemolea, H. H. Druce, known from the Gambia. *Lycænesthes adherbal*, Mabille, *L. lasti*, S. and K., *L. liodes*, Hew., *L. crawshayi*, Butl., *L. defina*, Butl., and *L. monteironis*, Kirby, agreeing exactly with the type in the Hewitson collection.*

Uranothauma autinorii, Oberth., *U. falkensteini*, Dewitz, and a large series of *U. poggei*, Dewitz, showing scarcely any variation. *Custalius hintza*, Trimen, *C. calice*, Hopff., and *C. melana*, Trimen. *Catochrysops glauca*, Trimen, a good series, *C. peculiaris*, Rogenh., and the giant *C. stormsi*, Robbe.

I recognize in all about sixty species, including the new forms hereafter described.

Liptena eulkrines, sp. nov. (Plate XIII, fig. 7.)

♂. Allied to *L. præstans*, Grose Smith, † from which it differs on the upper-side by the black costal margin on the primaries being broken beyond the end of the cell, and projecting downwards, thus freeing the black apex; the outer margin has only a linear black edge and the secondaries are unmarked excepting at the base of the cilia, where there appears to be a very narrow black line. Under-side: primaries differ from those of *L. præstans*, as on upper-side; secondaries, ground colour pale grey dusted with brown and crossed by numerous broken bands composed of irregular brown spots.

Head black; eyes ringed with white; legs yellowish; abdomen yellowish above, grey beneath; antennæ white-ringed, with black clubs.

Expanse $1\frac{5}{16}$ inch.

Hab. NORTH-EAST RHODESIA.

Three specimens showing no variation. This species agrees in venation with *L. libyssa*, Hew. ‡; the upper radial on fore-wing originating at end of cell as in that species. It has close superficial resemblance to *Teriomima*.

* Since the above was written, Mr. Bethune-Baker has shown me M. Mabille's type of *L. adherbal*, and pointed out that it is identical with *L. monteironis*, Kirby, and has priority. With this conclusion I quite agree. The species I have in this paper referred to as *L. adherbal* should be known as *L. lunulata*, Trimen.

† *Liptena præstans*, Grose Smith, Rhop. Exot. African *Lycænidæ*, pl. xxix, f. 15, 16, p. 141 (1901).

‡ *Liptena libyssa*, Hew., Exot. Butl., *Pentila* and *Liptena*, t. 1, f. 5, 6 (1866).

Iridopsis cupripes, sp. nov. (Plate XIII, fig. 8.)

♂. Closely allied to *I. exquisita*, Grose Smith.* Upper-side : black margins more distinctly defined and rather narrower. Under-side : primaries with four pale spots beyond the cell, the upper one small, the two median quadrate, large and distinct, the lower spot rounded and less distinct, below these there is an indication of a fifth spot. There are three pale patches at the outer angle, large and distinct. Secondaries ; the median band appears wider and more broken, and the marginal coloured band containing the metallic lunules is wider.

Expanse $1\frac{2}{3}$ inch.

Hab. NORTH-WEST RHODESIA.

Mr. Cookson only sent one specimen. Although this insect is undoubtedly very close to *I. exquisita*; I believe that, judging from analogy in the genus *Phytala*, it will prove to be distinct.

The species of this genus are very little known and seldom seen in collections. We have in our possession a ♀ specimen from Sierra Leone, which is exactly like Mr. Grose Smith's figure of *I. ansorgei*,† and I have no doubt that it is the ♀ of *I. incredibilis*, Staud., the ♂ of which is figured in *Iris* 4, t. 1, f. 7, 1891.

Spinulasis kallimon, sp. nov. (Plate XIII, fig. 9.)

♀. Upper-side. Primaries blackish-brown with distinct orange bands formed of quadrate spots. The 1st in, and at the end of the cell, consisting of a quadrate spot and a triangular spot below it ; a large quadrate spot beyond, joining at the median nervule to an irregular band consisting of six confluent spots which reach from the apex to near the outer angle. The inner margin from the base for about two-thirds its length and extending to the lower median nervule pale silvery blue. Secondaries pale greyish-brown with the under-side bands showing through as darker grey patches ; a deep black outer marginal line. Anal angle largely deep orange, containing a small black spot and two small patches of metallic scales. Ciliae of both wings distinctly and evenly deep orange, except at the anal angle where it is deep black. The tail on the lower median

* *I. exquisita*, Grose Smith, Nov. Zool., 5, p. 353 (1898), Rhop. Exot. African *Lycenidae*, pl. xxviii, f. 12, 13 (1901).

† *I. ansorgei*, Grose Smith, id. p. 354, Rhop. Exot. id. f. 10, 11.

nervule is black, tipped with white, that on the submedian nervures being orange tipped with black. Under-side: Both wings pale yellow with dark orange red-bordered bands, which incline to rounded spots, thickly lined interiorly with metallic scales. At the base of the fore-wing is a bright orange costal dash. There is a marginal narrow red line and two submarginal more prominent red lines to both wings.

A rather large marginal black spot at the anal angle below the submedian nervule and a smaller one crowned with metallic scales in the submedian interspace. Head dark orange without any black markings. Thorax and abdomen blackish above, pale yellow below; abdomen ringed with whitish.

Legs pale yellow; palpi pale yellow below, darker above with black tips.

Expanse $1\frac{3}{5}$ inch.

Hab. NORTH-WEST RHODESIA, January 1903.

A very beautiful and distinct species, not nearly allied to any that I can find described, but perhaps nearest to *S. homeyeri*,* Dewitz. Mr. Cookson sent four specimens, all females.†

Erikssonina cooksoni, sp. nov. (Plate XIII, fig. 4.)

♂. Allied to *Erikssonina acravina*, Trimen.‡ Upper-side uniform reddish-brown. Primaries with the costa (except at the base, which is reddish-brown) increasingly broadly black for about three-fourths its length when it becomes suddenly narrow and joins the broad evenly black outer margin. An elongate black spot at the end of the cell. Cilia deep black. Secondaries with a gradually increasing outer marginal black band, commencing beyond the middle of the costa and becoming narrow and broken about the region of the median nervure,

* *Spindasis homeyeri*, Dewitz, D. E. Z., 30, p. 429, t. 2, f. 5, 5a, 5b, 5c.

† Since the above description was written, Professor Poulton has sent me for examination a ♂ captured at Rabai, 14 miles N.W. of Mombasa on June 18th, 1903, by Rev. K. S'Aubyn Rogers, and presented by him to the Oxford Museum. It differs from the ♀ on the upper-side by the orange bands on the primaries being narrower and rather less conspicuous and by the hind-wing being suffused with rich purple from the subcostal to the submedian nervure; in this respect somewhat resembling *spindasis natalensis*, Westw., which has the inner margin of the fore-wing also broadly suffused. On the under-side it is identical with the ♀.

‡ *Erikssonina acravina*, Trimen, P. Z. S., 1891, p. 92, Pl. IX, f. 18, 19, 20.

and continuing narrowly to the anal angle where there is a black line placed obliquely just above it. The cilia is black, whitish at the base between the nervules. Under-side: Primaries rich orange, paler along the inner margin; black spots arranged as in *E. acraëna* with an additional black spot below the cell placed below the central cell spot. The outer margin is broadly paler, bordered inwardly with a black line, heavily covered with metallic silver scales and divided by the black nervules. Cilia black. Secondaries: Ground colour pale buff with the black spots large and distinct, the basal area suffused with bright carmine, and a bright carmine band placed between the ultra-median row of black spots and the sub-marginal black line. Outer margin and metallic scaling as in primaries.

Legs reddish-orange; palpi orange below, black above. Antennæ black; brownish at the extreme tip. Head black, yellow between the eyes. Abdomen deep orange-red above with a row of black spots; sides deep black with white spots; under-surface clothed with more or less orange hairs.

Expanse $1\frac{7}{16}$ inches.

Hab. NORTH-WEST RHODESIA.

Although doubtless allied to *E. acraëna* this insect appears to have many points of distinction, notably the broad black outer marginal border to the fore-wing above; the deep black cilia; and the carmine on the under-surface of the hind-wings. It is also a larger insect.

COOKSONIA, gen. nov.

Allied to *Erikssonia*,* Trimen, from which it differs in the fore-wing by the 4th subcostal nervule being emitted nearer to the base and by the subcostal nervure reaching the margin further below the apex; and in the hind-wing the stalk of the submedian nervure is much shorter. The antennæ are longer and when viewed from above appear to be but slightly thickened at the extremities, but when examined from the side they present a broadly spatulate club, in this respect entirely differing from *Erikssonia*.† The palpi which are not clothed with thick scales to anything like the same extent have the terminal joint less than half as long; almost minute.

* *Erikssonia*, Trimen, P. Z. S., 1891, p. 91.

† This may possibly be due to pressure in packing the specimen, which, however, shows no signs of flattening as regards the abdomen or thorax, and is in very perfect condition.

Type. *Cooksonia trimeni*, sp. nov.

I have compared this genus to Dr. R. Trimen's *Eriks-sonia*, but it presents important differences which may prove more remarkable when the male sex is examined. I dedicate it to Mr. Cookson, its discoverer.

Cooksonia trimeni, sp. nov. (Plate XIII, fig. 3.)

♀. Upper-side. Orange-ochreous, suffused with reddish-ochreous, deepening in colour towards the bases, brightest in the fore-wing.

Primaries : Costal margin narrow and evenly black, outer margin rather more broadly black ; apical third pure white, inwardly bordered with a rather broad black band, comparatively straight and even on its inner edge, and much suffused and irregular on its outer edge, reaching from the costa to the outer margin, where it is broadest ; the nervules crossing this white apex being distinctly black and being more decidedly conspicuous as they recede from the apex. A large black spot at the end of the cell and a smaller black spot beyond the middle of the cell placed near to but apart from its upper wall.

Secondaries : With a black border, commencing very narrowly beyond the middle of the costal margin, gradually and evenly widening towards the apex whence it becomes broken and though thickening at the extremities of the median nervules is very narrow along the inner margin and disappears before the base is reached. A distinct black spot at the end of the cell placed well above the median nervure.

Under-side. Primaries brownish-ochreous, reddish in the cell ; a distinct black spot at the end of the cell. The apical third consists of a series of five narrowly black-bordered greyish conical spots placed between the nervules, each one containing at its marginal base an indistinct ochreous patch. The outer margin has a linear black border.

Secondaries pearly-grey, with the inter-nervular spaces more or less suffused with reddish-brown scales which are most conspicuous just beyond the middle. The basal half contains about twelve large black irregular white-ringed spots, several of which, close to the base are confluent, and a median row of irregular black dots. The outer margin is bordered with a linear black band ; beyond which are two rows of angular black markings placed between the nervules, the outer row enclosing ochreous patches, the inner pale grey.

Head black, with two white spots behind the bases of the antennæ and two white streaks between the eyes.

The upper part and the sides of the abdomen are ochreous, but on the under-side of each segment there is a large distinct, white, black-margined spot. There are also white spots on the under-side of the thorax. The legs are black with yellow tufts at the base.

Antennæ black; the shafts minutely spotted with white on the under-surface.

Expanse $2\frac{1}{2}$ inch.

Hab. NORTH-EAST RHODESIA. October 1903.

On the under-side this insect has a remarkable *Acrævine* appearance, but although the upper-side has a general likeness to that group I know of no species of the genus *Acræa* which has the large white apex to the fore-wing.

Lycæncsthes anadema, sp. nov. (Plate XIII, fig. 6.)

♂. Allied to *L. lasti*,* Smith and Kirby, but smaller. Upper-side: dark purple with indistinct black marginal spots between the lower median nervules on hind-wing. Under-side: ground colour rather deeper in tone with the whitish chain-like bands less inclined to break up into spots and with their enclosed spaces scarcely darker than the surrounding ground colour. The red spots on the hind-wing, with the exception of the one below the costal nervure near the base, which is entirely absent, are dark, clearly defined, and conspicuous. The black, yellow-crowned marginal spot placed between the lower median nervules is smaller, as is the orange anal-angular streak. Thorax, abdomen, head and legs as in *L. lasti*. Cilia on upper-side pale brown, whitish towards tip.

Expanse $1\frac{1}{2}$ inch.

Hab. NORTH-WEST RHODESIA.

Can be distinguished by the smaller size and by the absence of the red basal spot on hind-wings below.

It is also allied to *L. hobleyi*,† Neave, but that species had a red basal spot and also a red cellular spot in hind-wings.

Catochrysops pampolis, sp. nov. (Plate XIII, fig. 11.)

♂. Upper-side: pale opalescent bluish brown with a linear brown margin and brown nervules to both wings; a slightly darker brown patch at the end of the cell of the fore-wing, containing a still darker streak. A medium-sized round black spot close to the margin of the

* *L. lasti*, Smith and Kirby, Rhop. Exot., 27. Afr. Lyc., p. 109, t. 24, f. 1, 2, 1894.

† *L. hobleyi*, Neave, Nov. Zool., v. xi, p. 339, 1904.

hind-wing, placed between the two lower median nervules. Cilia white, indistinctly darker at the extremities of the nervules. Under-side : ground colour of both wings pure white with broad blotches. Primaries ; a large quadrate blotch at the end of the cell ; costal margin pale brown ; an ultra-median brown band composed of confluent quadrate spots, semi-circular in form, reaching from the subcostal nervure, where it is widest, to lower median interspace where it is narrowed ; beyond this a rather narrow brown band of confluent inter-nervular patches, followed by a somewhat paler and narrower brown band reaching only to the lower median nervules, and beyond this a clearly defined, narrow, marginal line. Cilia white ; dusky at the ends of the nervules. Secondaries : costal margin pale brown ; two large black spots close to the margin, one about the middle, one half-way between this and the base ; a triangular black spot at the base of the cell, and two more along the anal margin ; a large irregular dark brown blotch, with several smaller blotches more or less attached to it, occupying the central area, and a double submarginal brown band more inclined to become fused towards the anal angle. Close to the margin between the lower median nervules is a large oval orange spot centered by a black spot which is crowned exteriorly by rich metallic-blue scales. In the submedian interspace, close to the submedian nervure is an orange streak bordered on either side by a small black spot ; cilia white, brownish at the extremities of the nervules.

Head, thorax and abdomen brownish-grey above, white beneath. Legs white ; palpi white, with black tips. Antennæ black, white ringed.

A short linear brown tail on the lower median nervure.

♀. Upper-side paler and brighter blue than ♂, fore-wing with apex and outer margin broadly pale brown ; hind-wing with an ultramedian, semicircular, irregular whitish band. Under-side : the white areas more extensive than in ♂, causing the brown blotches to appear more distinct ; the costal margin and the basal area are more broadly pale brown and the black spots appear white ringed.

Expanse ♂ $1\frac{7}{16}$ inch, ♀ $1\frac{9}{16}$ inch.

Hab. NORTH-WEST RHODESIA, November 1903.

Not very closely allied to any species that I can find described.

Catochrysops skotios, sp. nov. (Plate XIII, fig. 12.)

♂. Upper-side uniform dark olivaceous-brown, primaries with a darker streak at the end of the cell. Cilia slightly paler brown. Underside : ground colour olivaceous-brown, but slightly paler than

upper-surface, with sordid white-ringed spots and markings. Primaries : a large spot at the end of the cell ; an ultramedian band of six chain-like spots running almost in a straight line from the subcostal nervure to the submedian nervure, the two lower links being placed slightly nearer to the base, then two submarginal rows of pale sagittate lunules and a pale marginal line. Secondaries : two distinct black spots on the costal margin, another about the middle of the cell, and two more on the anal margin, one about the middle, the other near the base. A large sordid white-ringed brown spot near the end of the cell, then an irregular, much broken band consisting of sordid white-ringed spots, commencing below the black spot near the middle of the costal margin and reaching to the submedian nervure ; beyond this band are two rows of sagittate pale markings and a pale marginal line as in the primaries. A deep black spot, bordered outwardly with rich metallic scales and broadly crowned and partially surrounded by rich orange, is placed between the lower median nervules close to the base. Cilia of both wings brown.

Abdomen brown above, paler below ; legs brown ; head brown, eyes white-ringed. Palpi white, with black tips.

♀. Differs only from the ♂ on the upper-side by having a large, black, orange-crowned spot on the hind-wing near the margin, placed between the lower median nervules. On the under-side of the fore-wing there is a minute dot above the subcostal nervure at the end of the chain-like band. The orange-crowned spot on hind-wing is more conspicuous and there are traces of orange scales near the anal angle.

Expanse ♂ $1\frac{1}{2}$ inch, ♀ $1\frac{3}{8}$ inch.

Hab. NORTH-WEST RHODESIA, October and November 1903.

This species, which at first sight appears of a general type, is not very closely allied to any with which I am acquainted.

HESPERIIDÆ.

Cyclopidès cooksoni, sp. nov. (Plate XIII, fig. 10.)

Allied to *Cyclopidès formosus*, Butl.* Upper-side blackish-brown with bright yellow spots. Primaries : the basal third and the inner margin thickly dusted with yellow scales. A minute spot about the middle of the costa, and a rather larger one in the cell, below it. An ultra-median band, consisting of various sized irregular spots, reaching from the costa to the inner margin, the spot next to the costal spot

* *Cyclopidès formosus*, Butl., P. Z. S., 1893, p. 670, pl. lx, f. 8.

being placed right beyond the band, nearer to the outer margin. Secondaries : a semicircular median band consisting of three large irregular spots, beyond which, is a submarginal row of six (sometimes seven) smaller spots. Cilia of fore-wing black ; of hind-wing black, but bright yellow at apex and anal angle. Under-side. Primaries : costal margin yellow, divided just beyond the cell ; a broad yellow streak and a spot in the cell. The band of irregular spots as on upper-surface is present with the addition of a large spot in the interspace below the costal spot. Yellow marginal internervular radiations and spots as in *C. formosus*, but more pronounced. Secondaries much as in *C. formosus*, but the dark yellow spots deeper in tone and larger.

Antennæ, legs, palpi and head much as in *C. formosus*.

Expanse $1\frac{2}{5}$ inch.

Hab. NORTH-WEST RHODESIA, December 1903.

One specimen which I take to be a ♀ has a submarginal series of about eight minute yellow dashes on the upper-side of the fore-wing, and on several other specimens I can detect traces of some of these markings.

The hind tibiæ have the two pairs of spurs, the upper pair being smallest.

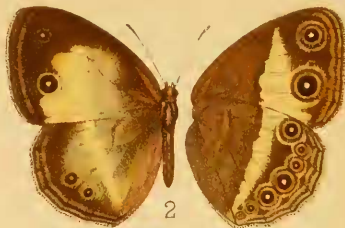
Mr. Cookson procured a good series of this species, which appears to be quite distinct from any hitherto described.

EXPLANATION OF PLATE XIII.

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- FIG. 1. *Mycalesis cooksoni*, sp. n., p. 251.
2. „ *haroldi*, sp. n., p. 252.
3. *Cooksonia trineni*, sp. n., p. 257.
4. *Erikssonia cooksoni*, sp. n., p. 255.
5. *Liptena homeyeri*, Dewitz, p. 252.
6. *Lycænesthes anadema*, sp. n., p. 258.
7. *Liptena eukrines*, sp. n., p. 253.
8. *Iridopsis euprepes*, sp. n., p. 254.
9. *Spindasis kallimon*, sp. n., p. 254.
10. *Cyclopides cooksoni*, sp. n., p. 260.
11. *Catochrysops pampolis*, sp. n., p. 258.
12. „ *skotios*, sp. n., p. 259.



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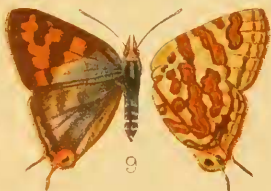
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Horace Knight del

West, Newman chromo.

NEW RHODESIAN BUTTERFLIES.